

Einführung in Visual Computing

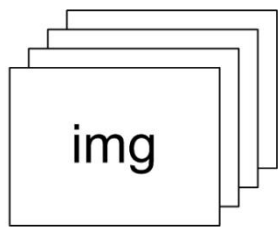
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Introduction to ReMake & Blender

Pascal Plank



- 3D reconstruction from 2D data (ReMake)
- Clean up the model (ReMake)
- Modelling 3D objects (Blender)
- Setup a scene and rendering (Blender)



ReMake



Blender

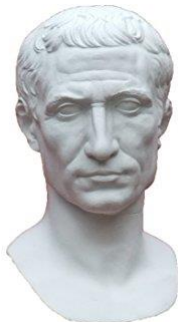


<http://www.autodesk.com/education/free-software/remake>

- Free for TU-students
- Windows only
- Mac/Linux-User:
 - Windows as second OS (MSDNAA)
 - Parallels (VMWare and Wine don't work!)
 - Any other „photogrammetry software“
e.g. Agisoft Photoscan, Visual SFM, etc.
→ not supported by the Tutors!



Good	Bad
Relatively komplex (statue)	Too simple (football, cube)
Opaque	Transparent/translucent (glas)
Matt	Glossy, reflective, mirroring (metalls)
Solid	Deformable (textiles, animals)
Lots of texture	Little texture
Locally smooth surface	Strong cavities (ananas)



<https://www.blender.org/download/>

- Free & for all common platforms
- Modelling, texturing, animation, physics, simulation, rigging, game engine, tracking, etc.
- Relatively easy but steep learning curve!

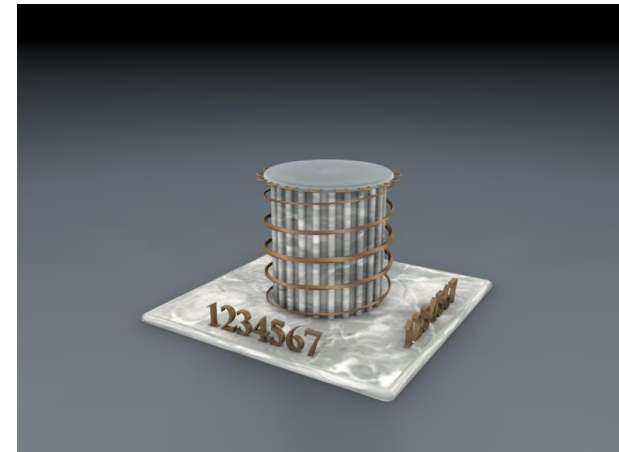
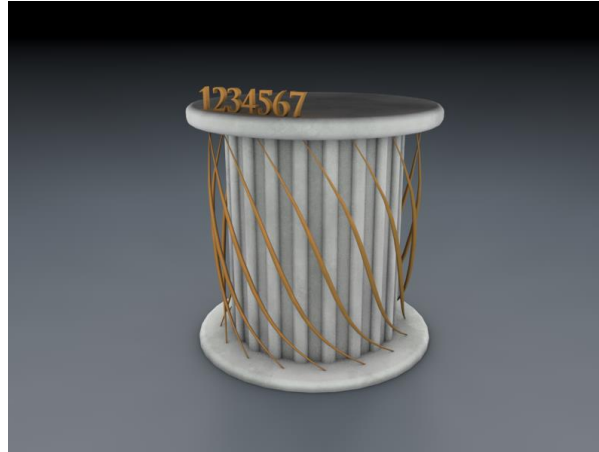
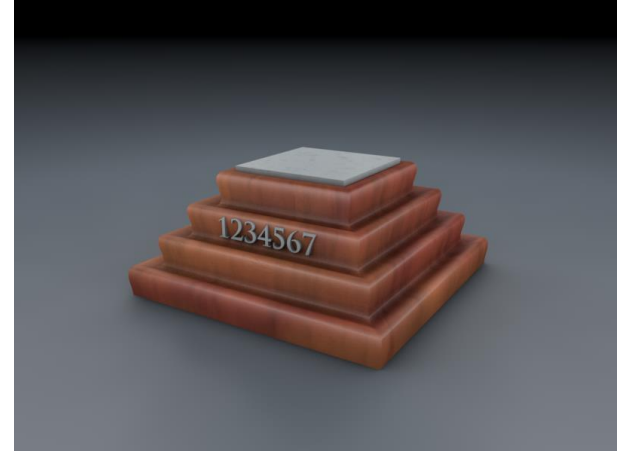
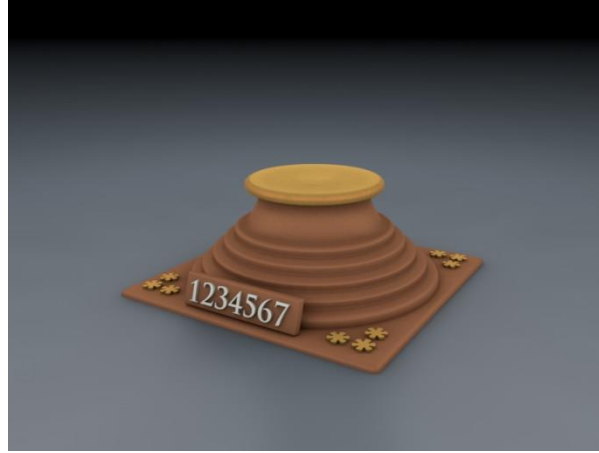
- Loads of tutorials for pretty much everything

<https://www.blender.org/support/tutorials/>

<https://www.blenderguru.com/>

<https://www.youtube.com/>





- **Save** early and often
- Hotkeys are your friends
- Model in Blender while ReMake is busy



Demotime!



■ **Interface Toggles:**

- Left panel: „T“
- Right panel: „N“

■ **Views:**

- Toggle ortho/perspective projection: „5“
- Sideviews: „7“, „9“, „1“, „3“
- Toggle cameraview: „0“
- 4 Views: Ctrl + Alt + Q

■ **Move in 3D-Window:**

- Rotation ... Press middle mousebutton
- Translation ... Shift + middle mousebutton
- Zoon ... Scroll



- **Selection:**
 - Multiple selections: Shift + right mousebutton
 - Toggle Select All/Deselect All: „A“
 - Invert Selection: Ctrl + „I“
 - Loop Selection: Shift + Alt + right mousebutton
- **3D Cursor:** Shift + „S“ → Cursor to center
- **Objects:**
 - New Object: Shift + „A“
 - Duplicate selected object: Shift + „D“
 - Instance of selected object : Alt + „D“
 - Delete selected element: „X“ or „Delete“-Key
- **Toggle Edit/Object-Mode:** „Tab“-Key

